TOTAL REFINERY - AGENDA/OUTLINE

I. Background

1. Land farm system layout.

2. Act 64 operating license monitoring requirement. (copy of relevant pgs attd.

3. Results of monitoring and follow-up studies.
   a. Sampled since July, 1982.
   b. 9 constituents elevated - Conductivity, TOC, chloride, sulphate, sodium, oil and grease, iron, manganese, lead.
   c. At least one constituent in 12 wells.

4. April 4, 1984 letter from Rector - Main points. (copy attached)
   a. Review monitoring requirements and company monitoring efforts.
   b. Review contaminants noted.
   c. Due to pits agreed to extended study.
   d. Company failed to answer 3 questions; source, specific constituents and areal extent of plume.
   e. Company ordered to stop using farm and follow license requirements regarding clean-up, offsite migration, etc.
   f. Allow short period of study if Company wants to.

II. Company Proposal - Major Elements of May 1, 1984 Letter (Copy attached)

1. Slurry wall and purge wells discharging to Company Wastewater Treatment Plant.

2. Map offsite plume.

3. Determine specific constituents.

4. Determine source of contaminants.

5. Monitoring data questions.

6. Total's objective - use the land farm.

7. Follow-up meeting.

III. Proposed MDNR basic position and requirements

1. Groundwater is contaminated by Company.

2. Based on further review we don't believe additional study will be able to prove that land farm has not failed.

3. Should not delay the inevitable clean-up by conducting further studies.

4. The only way we can approve land farms is if they do not contaminate groundwater.

5. We cannot agree to the slurry wall and purge system concept as an operating system.

6. Company should permanently cease operation at this site.

7. Company should clean-up soils, eliminate source of contaminants, and clean up groundwater at this site.

8. Company should document the extent of the offsite plume and then clean up groundwater

IV. Proposed MDNR response to Company proposal - Major elements based on III

1. Slurry wall and purge well
   a. May be acceptable as a remedial action, not to justify on-going operation, should look at other remedial systems.
   b. Doubt that WWTP will remove much of groundwater contamination.
   c. MDNR policy has been to only allow contaminated groundwater to be discharged to a river if the groundwater is cleaned up to near groundwater quality, company must prove high degree of removal in their proposal and/or propose alternatives.
   d. If we do approve, will need NPDES permit modification.

2. Map offsite plume
   a. Any problem with proposal - Terry and Dan.
   b. Based on results we will want groundwater clean-up - need a commitment and proposal from the company.

3. Specific constituents.
   a. May not be needed if they cease operation and clean-up.
   b. If needed, any specific problems - Terry and Dan.

4. Source of constituents
   a. We doubt the Company can prove that pits caused problem.
   b. May not be needed if they cease operation and clean-up.
   c. If needed, any specific problems - Terry and Dan.

5. Monitoring data questions.
   a. We will agree that lead is not elevated based on no confirmation.
   b. We will agree that oil and grease value was not elevated based on no confirmation.

6. Totals objective - continued operation.
   a. We don't see the proposed remedial system as a justification to continue the land farm.
   b. Company should permanently abandon this site and clean up the soils and groundwater.

7. Follow-up Meeting.
   a. Arrange with R. Basch?
   b. Suggested date and attendees from MDNR.

V. Other Items

1. Surface water concerns, contact person.

2. Groundwater concerns, contact person.

3. Enforcement, contact person.
   a. Consent order, Act 64 license revocation?
   b. Penalties if they purge and discharge to river without high degree of removal?

4. Hazardous Waste Division - revised closure plan and post closure plan following plume documentation and MDNR - Company agreement.

5. Environmental Protection Agency - involvement?

MONITORING

16. Monitoring

A. All samples and measurements taken for the purpose of monitoring must be representative of the monitored activity.

B. The Director reserves authority to require specific monitoring for hazardous wastes or hazardous waste components in addition to those requirements detailed in this permit if the Director finds that additional monitoring is needed to demonstrate compliance with the Act and rules.

C. The results of all monitoring required by this license shall be submitted to the Department within 60 days of sample collection.

D. If the licensee conducts required monitoring more frequently than required by this license, the results of such monitoring shall be included in the reporting under paragraph C. Such increased frequency shall also be indicated.

E. Changes to the monitoring programs required by this license may be approved by the Director through modification of this license.

RECORDS

17. Operating Log

The licensee shall keep an operating log at the facility as required by R299.6901. The log shall contain, at a minimum, all of the following:

A. A copy of each manifest and each certificate of disposal or else that information which would be present on these documents, including: the hazardous waste number of the waste(s); the volume or weight of the waste(s); the results of all analyses and tests performed on the waste(s), the method(s) of disposal used, and the date(s) of disposal.

B. Additional waste information required by 40 CFR 265.73, including the density of the waste when only volume is given, and a description of the process that produced the waste, for non-listed wastes.

C. Results of all monitoring activities required by this operating license. Records of monitoring information must include the date, exact place, and time of sampling or measurements; the individual(s) who performed the sampling or measurements; the date(s) analyses were performed; the individual(s) who performed the analyses; the analytical techniques or methods used; and the results of such analyses.

A. The authorization is made in writing by a principal executive officer of at least the level of vice-president.

B. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity.

28. Compliance Schedules - Not Applicable.

29. Immediate Reporting

The licensee must immediately report any noncompliance which could impact health or the environment and must follow up this oral report in writing.

A. The following information shall be provided to the Department immediately by calling the Department of Natural Resources 24 hour Emergency Response telephone number 1-800-292-4706:

1. Information concerning hazardous waste being treated, disposed of, or stored in violation of 1979 P.A. 64 in a manner which could threaten human health or the environment or that may cause an endangerment to public or private drinking water supplies.

2. Information concerning any emergency situation, involving spills, explosions, losses to the environment and other circumstances requiring implementation of the Contingency Plan.

3. Detection of hazardous waste components above background levels by monitoring programs.

4. Any dust or odor complaint from the public concerning the facility.

5. Other information concerning failure of the facility as required by Part II.

B. The licensee shall, within fifteen (15) days of becoming aware of the circumstances reported in paragraph A, provide the Director with a full written explanation as to the cause and discovery of the incident, mitigating measures taken, preventative measures to be taken, and schedule of implementation.

30. Other Noncompliance

The licensee must report all instances of noncompliance not otherwise reported under Condition 29 of this part as part of the facility's monthly operating report.

E. Earthen dikes shall be maintained with sufficient structural integrity to collect or contain all surface water runoff from a 24-hour, 100-year storm to preclude release of runoff water to any area outside the land treatment area except those discharges covered by the company's NPDES permit.

F. Earthen dikes surrounding the treatment area must be kept free of:

1. Plants with root systems which could displace the earthen materials upon which the structural integrity of the dike is dependent; and

2. Burrowing mammals which could remove earthern materials upon which the structural integrity of the dike is dependent or create leaks through burrows in the dike.

G. A protective cover such as grass, shale, or rock shall be provided and maintained on the earthen dikes surrounding the treatment area to minimize erosion and to preserve the structural integrity of the dike.

H. Run-on must be diverted away from the land treatment area.

I. An instrument imposing a restrictive covenant on the land treatment area shall be executed by the owners of the land. Residential development or use of the land for food chain crops shall be restricted.

ENVIRONMENTAL MONITORING

4. Groundwater Monitoring

A. The licensee shall maintain and operate a groundwater monitoring system consisting of four groundwater wells labeled 3, 4, 5, and 6 located as shown in Figure 2 of Appendix A of the operating license application. Monitoring wells shall be sampled in accordance with the procedures specified below:

1. The static water elevation shall be determined semi-annually by methods giving precision to 1/8" or 0.01 feet prior to sampling water from the wells. Measurements shall be made from the top of the casing with the elevation of all casings in the monitoring well system related to a permanent reference point, using United States Geological Survey datum.

2. A volume of water equal to or greater than 3 times the amount of water in the well and/or gravel pack shall be exhausted before obtaining a sample for analysis. In the case of very low permeability soils, the well may have to be pumped and allowed to refill before a sample is collected.

3. Pumps or sampling equipment shall be thoroughly rinsed (or equivalent) before use in each monitoring well.

4. A pressure tank may be used with a sampling system.

5. Water pumped from each monitoring well shall be discharged to the ground away from the well to avoid recycling of the flow.

6. Parameters for analysis of the monitoring wells are given in table 1.

7. All wells shall be visibly marked and securely capped when not in use.

B. Soil-pore water samples will be collected semi-annually from the treatment area using vacuum porous cup lysimeters as outlined in the operating license application. Parameters to be analyzed are given in table 2.

C. The licensee shall collect background quality data from the shallow aquifer using well #4 (identified in table 2, Appendix A of the operating license application) for those parameters listed in Table 1. Enough samples shall be collected to provide a statistically valid representation of background quality. Samples shall be collected and analyzed quarterly for one year. After background groundwater quality has been established, samples shall be collected and analyzed annually.

D. The licensee shall monitor the lower aquifer semi-annually by sampling one of the three appropriate company wells located in the treatment area. The list of parameters to be analyzed on a one time basis is given in Table 2. Subsequent index parameters will be selected from this list based on test results and comparison to the shallow monitoring well data referenced in part A, the final number of parameters not to exceed 12. The Director will make this determination within 120 days of the first complete data submittal.

E. In the event that parameters listed in Table 1 are detected in the shallow wells in concentrations greater than two standard deviations above background levels, the licensee shall:

1. Immediately confirm the validity of the data; and

2. If valid, notify the Director by telephone as required by Condition 29 of Part I.

3. Specific conductance and chlorides from well 6 may already exceed 2 standard deviations because of past parking lot brine applications, so they need not be compared to background levels.

F. In the event that the Director finds in accordance with Section 47, 1979 PA 64 as amended, that there is an imminent and substantial hazard to the health of persons or to the natural resources, the licensee shall:

1. Immediately cease placing wastes into the land treatment area until instructed by the Director that operation may resume.

2. Immediately take steps to determine the cause of the contamination.

3. Within 10 days submit a plan of corrective action to the director.

4. Upon approval of the plan immediately begin its implementation.

5. Provide the Director, or his designee, with daily telephone updates and written reports every two weeks regarding the progress to date in determining the cause of contamination and the results of all monitoring samples from environmental monitoring.

G. In the event that notification is given to the Director in accordance with Item 4(E) of this part and the Director does not find that there is an imminent and substantial hazard to the health of persons or to the natural resources, the licensee shall:

1. Determine the cause of the contamination.

2. Within 21 days submit a plan for corrective action.

3. Upon approval of the plan immediately begin its implementation.

INSPECTIONS AND TESTING

5. Inspection of Land Treatment Area

A. The licensee shall inspect the facility at least once per operating day as identified in the inspection schedule in the Spill and Accident Prevention Plan and in the revised operating license application to assess the integrity of the system.

B. At least annually, the soil pH will be tested from a ten location composite sample of the till zone in each of the fields comprising the active treatment area. If the pH is 6.5 or less, then the soil must be treated within 30 days to raise the soil pH to greater than 6.5 S.U. to prevent leaching of metals. Within 30 days following treatment to raise the pH, the soil shall be retested in the manner described above to confirm the success of the treatment.

REPAIRS AND CORRECTIONS OF DEFICIENCIES

6. Land Treatment Area Repair

A. Whenever there is a positive indication of failure of the land treatment area, such as off-site migration of hazardous waste or failure to degrade the oily wastes, the licensee must:

1. Immediately stop applying hazardous waste to the treatment area,

2. Immediately prevent off-site migration;

3. Take any additional action prescribed in the Contingency Plan; and

4. Take action to capture and treat any escaped material.

B. Any repairs to the land treatment area must be done to the specifications of the original construction and the repairs must be certified by a registered professional engineer.

CLOSURE

7. Closure of the Land Treatment Area

A. Closure must be executed in accordance with the approved Closure Plan. If oil levels in the till zone soil of the treatment area cannot be reduced to less than 1% during the closure period, then the hazardous waste residues shall be removed prior to seeding. The soil, soil-pore water, and groundwater monitoring will be met during closure.

B. The director may require modification of the closure plan if the plan proves to be inconsistent with the results of the two ongoing studies referenced in the closure plan. The referenced studies are:

1. Three closure studies conducted by Dr. Michael Schornick, University of Oklahoma for the U.S. EPA.

2. A three year study of closure alternatives sponsored by API and the Robert S. Kerr, Environmental Research Laboratories of the U.S. EPA.

Total Petroleum will provide these studies for department review when they become available. Within one year after submittal to the department, a final decision will be made with regard to final closure requirements. Because the estimated operating life of the facility is 15 years, (1997), any additional closure requirements will be incorporated into the operating